ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829
PAT QUINN, GOVERNOR LISA BONNETT, DIRECTOR

"Rockford Region Agricultural Field Investigation Report"

File: Meier Land and Cattle, LLC
County: Stephenson
Date: April 24, 2013
Address: 3568 E. McConnell Road
Dakota, IL 61018

Township: Dakota
Lat.-Long.: 42.427; -89.544
Legal ID: NW/14/28N/8E

Receiving Stream: Cedar Creek

Persons Interviewed: Eugene Meier, [redacted] (Exemption 6 and Exemption 7(C))
Matthew Meier

NPDES Permit: ILA010071

Weather: Wet, sunny, 40's

INTRODUCTION

This visit was made at the request of USEPA/Region 5 to inspect this CAFO facility within the 5-year NPDES permit cycle. This facility received its permit January 18, 2011. Eugene [redacted] and Matthew [redacted] Meier were present and accompanied the inspection evaluation. The inspection began at 11:00 AM. This facility has been inspected several times by IEPA in past years with compliance issues resulting. This beef facility is located in Section 14 of Dakota Township in Stephenson County, Illinois.

NPDES PERMIT EVALUATION

General NPDES Permit ILA010071
Issued: January 18, 2011
Expires: September 30, 2014

Special Condition 3: Discharge Limitations
One area of concern was the silage mixing area on the southeast side of the production facility. The exposed concrete feedlot contained excess feedstuffs stored outside in the elements and also feed spillage outside the new roofed commodity shed. Wastewater runoff from this concrete pad flows into a vegetative area measuring approximately 300 feet in width before reaching Cedar Creek.

Special Condition 4: Nutrient Management Plan
The facility developed a CNMP with the aid of Matt Wagner and Alan Madison in February 2009. The plan was reviewed and found to be out of date with the number of animals, a new cattle building not included and manure production numbers, etc., are all not accurate of what the facility is presently operating as. The CNMP represents 550 animals and today's inspection was reported as having 950 feedlot animals at the facility. Additional manure storage was also added with the new confinement building. The agronomic numbers were also out of date and required updating. Rotations have also changed, as the Meiers have transitioned into a continuous corn cropping program to fully utilize the nitrogen credits from the cattle manure.

The CNMP had cropping rotations and applications projected to the Fall of 2011. Application rates varied from 6300 - 8700 gal/acre. Meier reported that they were targeting 4800 gal/acre with their current tank wagon applications that they do in the fall and applying 8700 gal/acre in the spring when they utilize a drag line applicator because of soil compaction concerns. Meier currently uses approximately 520 acres annually for his manure applications vs. 496 acres listed in the CNMP. All the manure is applied to owned farmground.

A manure analysis was included in the plan that was from 2012.

Animal mortality is accomplished by rendering disposal.

Soil tests are collected by Eugene Meier and submitted to a certified laboratory.

Special Condition 5: Spill Control and Prevention Plan and Release
One was contained in the CNMP.

Special Condition 6: Storm Water Management Plan
One area of concern observed during this inspection was the concrete pad located south of the lower commodity shed. Feed is mixed in this area also. A pile of discarded bulk potatoes and potato chips was stored outside on the concrete. Some feed spillage was also near the commodity storage. Storm water runoff discharges from the concrete pad east into a flat vegetative wet area. Cedar Creek is approximately 300 feet east of the concrete pad.

Special Condition 7: Monitoring, Record Keeping and Reporting Requirements
Meier has submitted the necessary annual reports to IEPA/Springfield in 2011 and 2012.

Special Condition 15: Duty to Maintain Permit Coverage
Meier is anticipating to petition out of permit coverage during the 180-day window before his permit expires.

Special Condition 16: Modification to the Nutrient Management Plan
Meier was advised to have his CNMP updated (i.e., current animal numbers, crop rotations, manure production, application rates, etc.).

FACILITY DESCRIPTION

The walk around the production facility began at the feed mixing pad located south of the commodity shed. The area contains a concrete slab that drains east into a flat vegetative area that was wet and poorly drained. Cedar Creek is located approximately 300 feet from the concrete slab.

A 6000 gallon tanker containing delactosed permeate (DLP) was on the concrete pad. The liquid product is used in the cattle rations for protein and energy. DLP is the protein removed from whey and condensed to approximately 35% solids (Photo #1).

The cattle farm feeds unsaleable potato chips and potatoes, taco shells, cream of wheat, wet corn gluten and processed corn fodder.

There are four cattle confinement barns that house approximately 950 feedlot animals. All the animals are owned by the Meiers and fed to market weight. Two of the cattle barns contain a partial slatted manure pit. These partial pits have a capacity of approximately 60 days of storage. The manure is transferred via a rubber hose (Photo #10) to the earthen storage basin. Manure is land applied spring and fall by a custom manure applicator. The manure is tank hauled and injected each fall by Barry Manthei. Fall application rates were reported at 4800 gal/acre. The springtime applications are completed by Jeff Kintzle using a drag hose applicator. Approximately 6000 gal/acre is applied with this manure injection system.

The earthen storage basin (Photo #9) was nearly full. Available freeboard was estimated to be 18-24 inches. The custom applicator was due to arrive and pump the manure before plant season started.

SUMMARY

The Meiers were briefed at the conclusion of the inspection of the need to have a TSP update the facility CNMP with current production information. A copy of the updated CNMP should be sent electronically to IEPA Permits/Springfield.

The leachate wastewater concern from the concrete pad south of the commodity barn was brought to their attention. A row of concrete blocks and/or earthen berm could be added on the downhill side to provide containment for the concrete pad. The 6000 gallon tanker of DLP poses a bigger threat should a spill or release occur while loaded on the concrete pad. Due to the tanker's visibility from McConnell Road and the possibility of vandalism or valve failure, this product would pose an extreme hazard to the environment considering the close proximity of Cedar Creek. Meier was made aware of the risk and advised to make the necessary precautions.

The inspection adjourned at 3:00 PM. No wastewater samples were collected.

Lee Heeren, Ag Specialist

LH/svf

Attachments:
Map
Photos
3560 Form
Livestock Facility Inspection Checklist

cc: DWPC/FOS and Records Unit
Rockford Region

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
Livestock Facility Inspection Checklist

GENERAL INFORMATION

TYPE OF INSPECTION:
☒ CAFO ☐ COMPLAINT ☐ RECONNAISSANCE ☐ ERU FOLLOW UP ☐ OPERATOR REQUEST ☐ OTHER

FACILITY NAME (LLC, Inc., Corp, Partnership, sole proprietorship, etc.)	INSPECTION DATE	ARRIVAL TIME
Meier Land and Cattle, LLC	**4-24-13**	**11:00 AM**

ADDRESS	LATITUDE (Decimal)	LONGITUDE (Decimal)	DEPARTURE TIME
3568 E. McConnell Road	**N 42.427**	**W -89.544**	**3:00 PM**

CITY	STATE	ZIP CODE	INSPECTOR(s)	ACCOMPANIED BY (if applicable)
Dakota	**IL**	**61018**	**Lee Heeren**	

COUNTY	SECTION	TOWNSHIP	RANGE	POLITICAL TOWNSHIP	TEMPERATURE	PRECIPITATION TYPE
Stephenson	**14**	**28N**	**R8**	**Dakota**	**40's**	**wet**

	NAME	CONTACTED	PHONE	MOBILE
Facility Owner(s): Exemption 6 and Exemption 7(C)	**Eugene Meier**	☒ YES ☐ NO		Exemption 6 and Exemption 7(C)
	ADDRESS	CITY	STATE	ZIP CODE
	NAME	CONTACTED	PHONE	MOBILE
		☐ YES ☐ NO		
	ADDRESS	CITY	STATE	ZIP CODE
Facility Operator(s): Exemption 6 and Exemption 7(C)	NAME **Matt Meier**	CONTACTED ☒ YES ☐ NO	PHONE	MOBILE Exemption 6 and Exemption 7(C)
	ADDRESS	CITY	STATE	ZIP CODE
	NAME	CONTACTED ☐ YES ☐ NO	PHONE	MOBILE
	ADDRESS	CITY	STATE	ZIP CODE

NPDES PERMIT INFORMATION (If no NPDES Permit, skip this section)

1. What type of NPDES permit has been issued? ☐ Individual NPDES Permit ☒ General NPDES Permit	NPDES # **ILA010071**	
2. What date was the NPDES permit issued? **10-20-2009**		
3. What date does the NPDES permit expire? **9-30-2014**		
4. Is a copy of the NPDES permit onsite?	☐ YES	☒ NO
5. Permitted number of animals (no. & specie)? **550 beef**		
6. Does the NPDES Permit contain a compliance schedule?	☐ YES	☒ NO
7. Have there been any changes made to the production area since the permit was issued?	☒ YES	☐ NO

If "YES", provide a detailed description of those changes.

More feedlot animals - 550 vs. 950
Rotation changed to continuous corn.
One new cattle confinement building constructed and put into use (350 head).

LAND APPLICATION/NUTRIENT MANAGEMENT		
1. How many TOTAL acres are available for land application? **520** acres		
2. How many acres are READILY available for land application at the time of inspection? **520** acres		
3. Estimated annual quantities of liquid waste **2.5 MG** gallons		
4. Estimated annual quantities of solid waste **75** tons		
5. Does the facility have a contractor perform land application? If "YES", Name of Contractor: **Jeff Kinzle-spring;Barry Manthei-fall**	☒ YES	☐ NO
6. What type of land application equipment is available to the facility? ☐ Umbilical Injection ☐ Honeywagon Injection ☐ Honeywagon Surface ☐ Irrigation ☐ Rotational Gun ☐ Manure Spreader ☐ Vegetative Filter ☒ Other **None**		
7. Does the facility calibrate the land application equipment? If "YES", What method is used?	☐ YES	☒ NO
8. Does the facility land apply within the 150 foot setback from any water well? If "YES", Explain	☐ YES	☒ NO
9. Does the facility land apply within the 200 foot setback from any surface water? If "YES", Explain	☐ YES	☒ NO
10. Does the facility land apply near any residences? If "YES", Explain **All liquid manure is direct injected at time of application.**	☒ YES	☐ NO
11. Is livestock waste transferred off-site to another party? If "YES", Are records of manure transfers kept? If "YES", Ask to see records	☐ YES ☐ YES	☒ NO ☐ NO
12. Does the facility have a current NMP or CNMP? If "YES", Does the facility maintain a copy of the nutrient management plan (NMP) onsite?	☒ YES ☐ YES	☐ NO ☐ NO
13. Does the NMP reflect the current operational characteristics (number of animals, cropping, etc.)?	☐ YES	☒ NO
14. Are the number of acres owned/leased consistent with those in the NMP?	☒ YES	☐ NO
15. Is manure and wastewater being applied in accordance with setback/buffer requirements of the NMP?	☒ YES	☐ NO
16. Are all of the records identified in the NMP being maintained and kept current?	☒ YES	☐ NO
17. Are records being maintained at the required frequency?	☒ YES	☐ NO
18. Are records being maintained onsite for the period required by NMP and/or NPDES permit?	☒ YES	☐ NO
19. Is the NMP adequately addressing the storage, handling and application of manure and wastewater to prevent discharges to waters of the U.S.?	☒ YES	☐ NO

LIVESTOCK FACILITY DESCRIPTION

Type of Animals	Number of Animals (currently)	Animal Capacity	Type of Confinement	Number of Structures
BEEF CATTLE	200		OPEN CONFINEMENT BUILDING	1
BEEF CATTLE	200		OPEN CONFINEMENT BUILDING	1
BEEF CATTLE	200		OPEN CONFINEMENT BUILDING	1
BEEF CATTLE	350		OPEN CONFINEMENT BUILDING	1

Does the facility have an Illinois Certified Livestock Manager (300 or greater animal units)?	☐ N/A	☒ YES	☐ NO
If greater than 1000 animal units but less than 5000 animal units, does the facility have a waste management plan?	☐ N/A	☐ YES	☐ NO
If greater than 5000 animal units, has the facility submitted a waste management plan to IDOA for review?	☐ N/A	☐ YES	☐ NO
Does the facility have any other locations under common ownership, or where equipment and/or manure is shared, or where the other site shares land application sites? If so, put names and addresses below. **None**		☐ YES	☒ NO

LIVESTOCK WASTE STORAGE

1. Does the facility have any existing livestock waste containment system? ☒ YES ☐ NO
   If NO, then proceed to question 10.

2. General description of the waste containment system (include solid and liquid manure handling, mortality, and feed storage areas).
   Barn #1 - pit size 50' x 120' x 8' (6 month storage)
   Barn #2 - pit size 8' x 8' x 150' (pumped monthly). 1.3 MG earthen storage basin
   Barn #3 - pit size 12' x 6' x 160' (pumped monthly). 1.3 MG earthen storage basin
   Barn #4 - pit size 50' x 10' x 170' (6 month storage)

Type of Storage	Total Storage Capacity (Specify Units)
☐ Anaerobic Lagoon	
☐ Covered Lagoon	
☒ Holding Pond	**1.3 MG storage**
☐ Above Ground Storage Tank ("Slurrystore")	
☐ Below Ground Storage Tank	
☐ Settling Basin	
☐ Roofed Storage Shed	
☐ Concrete Pad	
☐ Impervious Soil Pad	
☒ Underfloor Pits	**4 - confinement buildings have slatted pits**
☐ Anaerobic Digester	
☐ Manure Stacks	
☐ Vegetative Filter	
☐ Other _____	
☐ None	

3. Do the storage structures have depth markers or staff gauges? ☒ YES ☐ NO

4. Are levels of manure in the storage structures recorded and records kept? ☐ YES ☒ NO

5. Do the storage structures have adequate freeboard? ☐ YES ☒ NO

6. Estimated final stage storage structure freeboard **18-24** in. of total depth _____ in.

7. Do facility personnel perform routine visual inspections of the storage structures? ☒ YES ☐ NO

8. Are the routine visual inspections documented? ☐ YES ☒ NO

9. Does the system have an outfall or discharge point? ☐ YES ☒ NO

If "YES", please provide a description (overflow pipe, spill way, etc. Include a description the area receiving the discharge).

None

10. Are there any portions of the production area where runoff is not controlled? ☒ YES ☐ NO

If "YES", provide a detailed description of the area(s) of concern:

Feed mixing area south of newest commodity shed contains some spilled feed and excess product stored outside. This area drains into a vegetative area bordering Cedar Creek. A 6000 gal. tanker containing liquid protein is parked on the concrete pad with no containment protection.

MORTALITIES MANAGEMENT

1. How are mortalities managed? (Composted, buried, burned, rendering service, other)

Rendering service

2. Are mortalities documented and are records kept? ☐ YES ☒ NO

FACILITY WATER SOURCES

1. What type of method is used to provide drinking water for the animals?

☐ Overflow waters ☐ Tip Tanks ☐ Nipple waters ☒ Water Bowls ☐ Other _____

2. How is the water for animals obtained?

☐ Community PWS ☒ On-Site Well ☐ On-Site Impoundment ☐ Other _____

3. Is a mist cooling system used? ☐ YES ☒ NO

How is mist water contained?

None

DAIRY OPERATION (If No Dairy, skip this section)

1. How many times per day are cows milked? _____

2. Describe how the dairy's non-contact cooling water is contained (Example: it is reused for drinking water for the animals).

None

3. Describe how the milking parlor is cleaned (hose or flush) and where the process wastewater goes and how it is contained.

None

4. Describe how the tank(s) are washed and where the process wastewater goes and how it is contained.

None

5. Describe where process wastewater from the plate cooler goes and how it is contained.

None

BEDDING (If No Bedding, skip this section)

1. Describe what type of bedding is used for the animals.

None

2. Describe how bedding is collected and how often.

None

3. What is done with the used bedding? ☐ Reused ☐ Land Applied

MANURE COLLECTION

1. How is manure collected?

   ☒ Under Floor Pit
   ☐ Scraped: ☐ Automatic ☐ Manual
   ☐ Flush
   ☐ Solids Separator
   ☐ Other: _____
   ☐ None

2. If manure collection system uses either clean or reused water to flush, describe where this water goes and how it is contained.

   None

FEED STORAGE CONTAINMENT

1. Describe how feed (silage, hay, etc) is contained.

   ☐ Bulk Bins
   ☐ Silage Pit
   ☐ Ag Bags
   ☐ Hay: ☐ Barn ☒ Outdoor
   ☒ Other: **commodity shed**

2. Describe how feed (silage, hay, etc) runoff is contained.

   ☐ Not Applicable – Feed totally enclosed
   ☐ Other: _____
   ☐ None

RECEIVING SURFACE WATERS

1. Provide a description of the flow path from the facility to the nearest named surface water.

   Southeast 1500 - 2000 ft to Cedar Creek

2. What is the name of the receiving stream?

   Cedar Creek

3. Status of the named surface water: ☐ Intermittent ☒ Perennial

4. Are any unnatural bottom deposits observed in the receiving stream: ☐ YES ☒ NO

   If "YES", provide a description of the deposits: **None**

DISCHARGES		
1. Have there been any documented discharges of livestock waste to surface water ***in the past year***? If "NO" proceed to question 2.	☐ YES	☒ NO
a. If "YES", specify the date(s). _____		
b. What was the reason for the discharge?		
c. Was the discharge the result of a 25 year-24 hour rainfall event?	☐ YES	☐ NO
d. What was the precipitation amount? *(if applicable)*		
e. Was IEMA notified of the discharge?	☐ YES	☐ NO
f. Has the facility taken corrective action to remedy the situation which caused the discharge(s)?	☐ YES	☐ NO
If "YES", describe actions taken: **None**		
2. Is the facility currently discharging livestock waste from the production area? If "NO" proceed to next section.	☐ YES	☒ NO
a. Was the discharge the result of a 25 year-24 hour rainfall event?	☐ YES	☒ NO
b. What was the precipitation amount? *(if applicable)*		
c. What is the reason for the discharge?		
d. Were water quality samples taken?	☐ YES	☒ NO
e. If "YES", how many? _____		
f. What parameter(s) tested? ☐ pH ☐ Ammonia ☐ Nitrate ☐ Nitrite ☐ Phosphorus ☐ BOD_5 ☐ Total Susp Solids ☐ Fecal ☐ Diss O_2 ☐ Other _____		

BIOSECURITY – Inspection Activities			
1. Were biosecurity measures discussed with the facility prior to inspection?		☐ YES	☒ NO
2. Has there been 24-hours downtime between inspections for all IEPA personnel present?		☒ YES	☐ NO
3. Was the order of inspection conducted from high risk to low risk?	☒ N/A	☐ YES	☐ NO
4. Did all personnel stay outside livestock management and livestock waste handling facilities as defined in 35 IAC 501.285 and 35 IAC 501.300? If "YES" skip to question 7.		☒ YES	☐ NO
BIOSECURITY – Personal Protection Equipment			
5. Was sanitary footwear donned prior to entering the livestock management/waste handling facility(s)?	☒ N/A Did not Enter	☐ YES	☐ NO
6. Were disposable coveralls donned prior to entering the livestock management/waste handling facility(s)?	☒ N/A Did not Enter	☐ YES	☐ NO
7. Was sanitary footwear used during the inspection?		☒ YES	☐ NO
8. Was disposable sanitary outerwear disposed at the facility?		☐ YES	☒ NO

BIOSECURITY – Vehicle			
9. Was the vehicle parking location discussed with the facility prior to inspection?		☐ YES	☒ NO
10. Was the vehicle washed since the inspection prior to current? If "YES" skip question 11.		☐ YES	☒ NO
11. Was the vehicle parked >300-feet from the livestock management/waste handling facility? Explain where vehicle was parked:	☐ N/A	☐ YES	☒ NO
12. Was IEPA vehicle used on site?		☐ YES	☒ NO
13. Was facility vehicle used on site?		☐ YES	☒ NO
BIOSECURITY – Inspection Equipment			
14. Was all equipment wiped down with anti-bacterial wipes?		☐ YES	☒ NO
15. Was sample cooler kept inside vehicle during inspection? If "YES" skip question 16.		☒ YES	☐ NO
16. Was sample cooler wiped down with antibacterial wipes before placing back into vehicle?	☒ N/A	☐ YES	☐ NO

OTHER COMMENTS/NOTES

See narrative and accompanying photos.

Check all attachments: ☒ Narrative ☒ Photos ☐ Site Plan ☐ Sample Results

INSPECTOR'S SIGNATURE	**REPORT DATE**
	4-24-13

Cc: BOW/DWPC/RU

Attachments:_____

Revised March 2012

EPA

United States Environmental Protection Agency

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 [ ] 2 [5]	3 [I L A 0 1 0 0 7 1] 11	12 [1 3 0 4 2 4] 17	18 [C]	19 [S]	20 [3]

Remarks

21 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
67 [ ] 69	70 [ ]	71 [ ]	72 [ ]	73 [ ] 74 75 [ ] 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)	Entry Time/Date	Permit Effective Date
Meier Land & Cattle, LLC **3568 E. McConnell Road** **Dakota, IL 61018**	**11:00 AM**	**20-Oct-09**
	Exit Time/Date	Permit Expiration Date
	3:00 PM	**30-Sep-14**

Name(s) of On-Site Representative(s)/Title(s)/ Phone and Fax Number(s)

Eugene Meier, Exemption 6 and Exemption 7(C)
Matthew Meier

Other Facility Data

Name, Address of Responsible Official/Title/Phone and Fax Number

Eugene Meier

Contacted [X] Yes [ ] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

X	Permit		Flow Measurement		Operation & Maintenance		Storm Water
X	Records/Reports		Self-Monitoring Program		Sludge Handling/Disposal		Combined Sewer Overflow
X	Facility Site Review		Compliance Schedules		Pretreatment		Sanitary Sewer Overflow
	Effluent/Receiving Waters		Laboratory		Pollution Prevention		MS4

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation Codes, as necessary)

See attached inspection report.

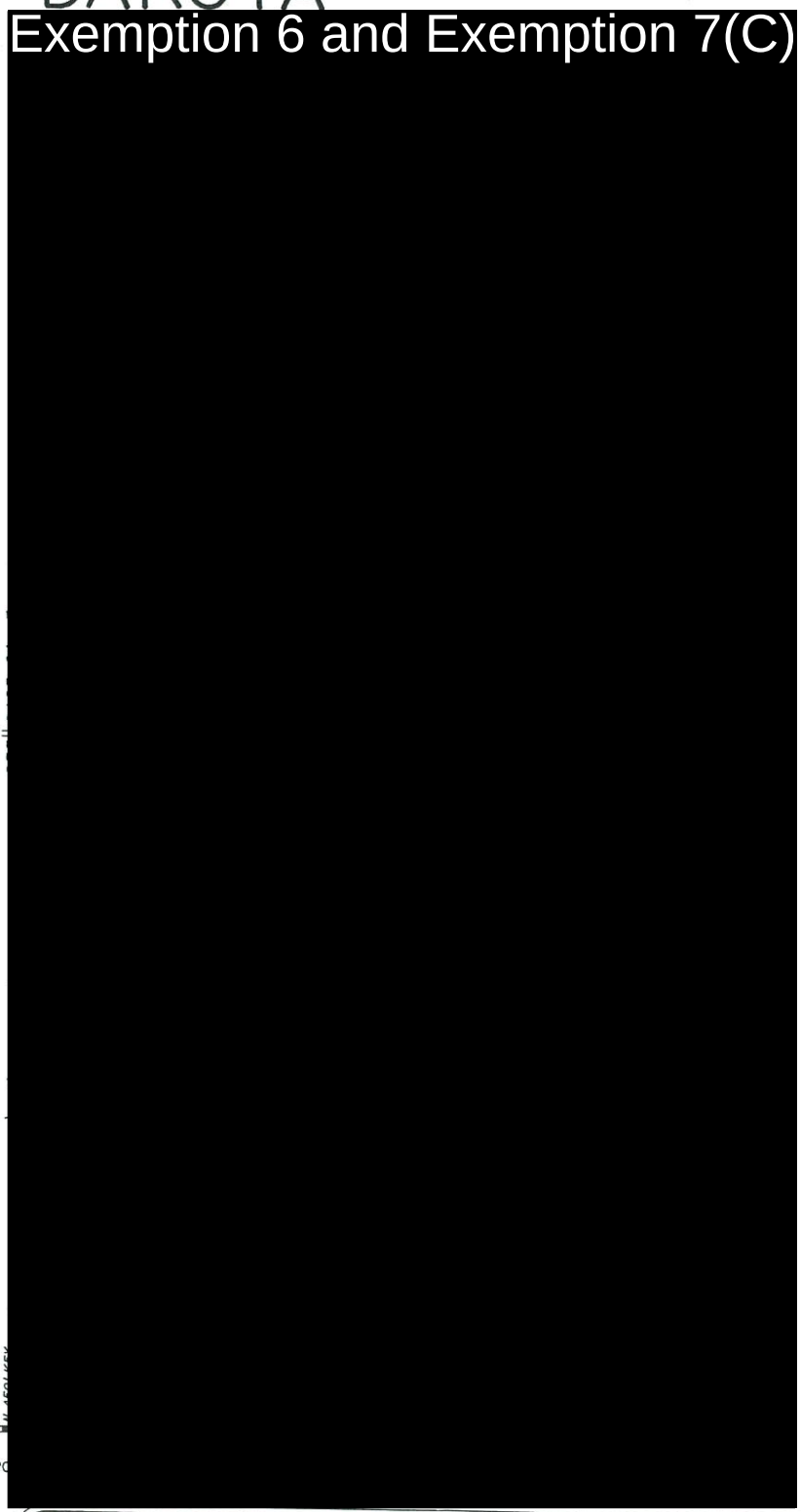
SEV Codes

SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Lee Heeren **Lee Heeren**	**IEPA / DWPC / FOS-Rockford** **815/987-7760 FAX 815/987-7005**	5-14-13
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	Date
	IEPA / DWPC / FOS-Rockford **815/987-7760 FAX 815/987-7005**	5.19.13

cc: BOW-FOS / Records Unit

Exemption 6 and Exemption 7(C)



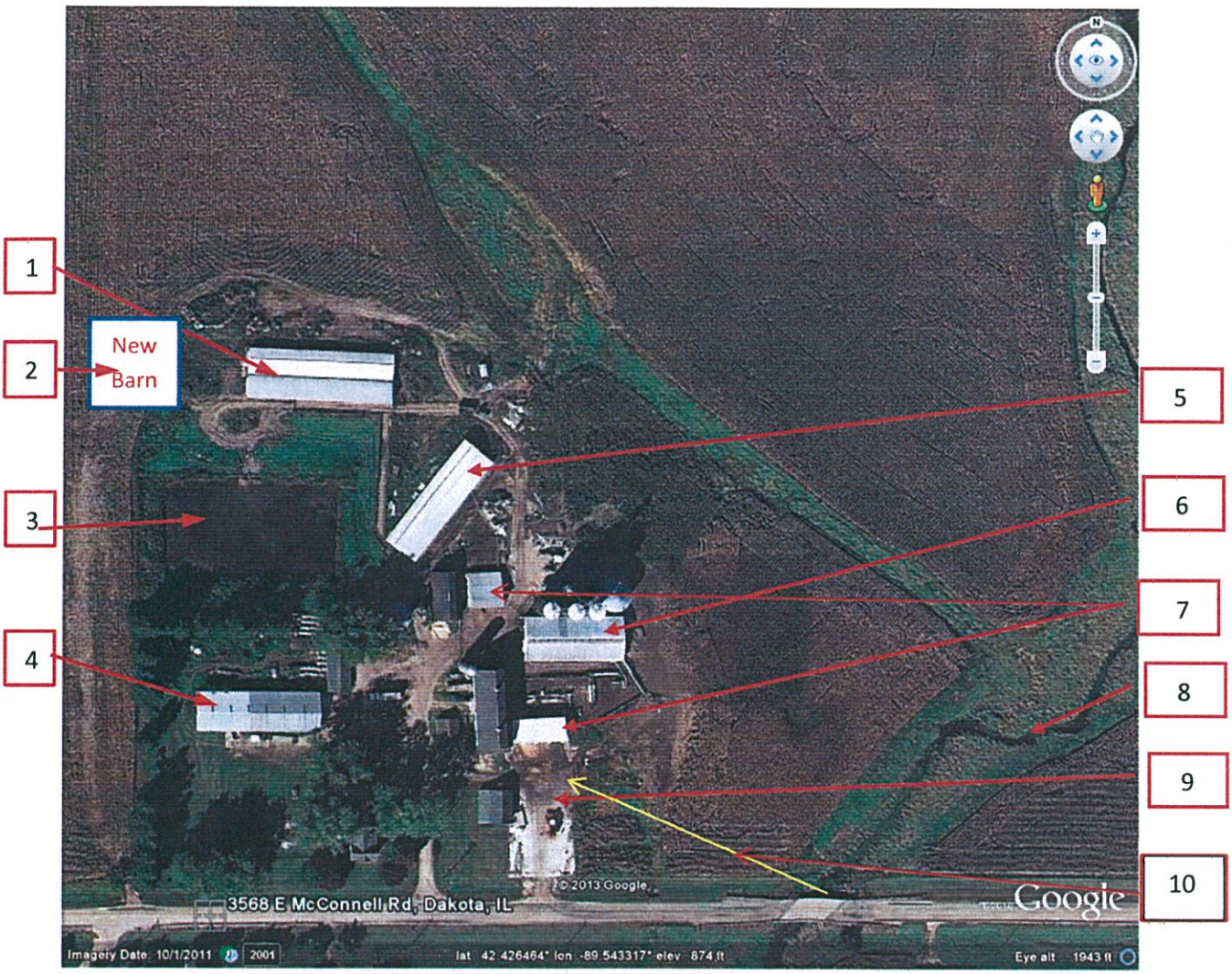
Clay Farm - NE/24/28N/08E

Meier Farm - NE/14/28N/08E

Schlueter Farm - SE/01/28N/08E

Eugene Meier Farm, 3568 McConnell Road, Dakota, Illinois 61018

April 24, 2013



Map Point	Description
1	Cattle Barn # 3; 200 head capacity; 8ft. partial pit on slats
2	New cattle confinement barn #4 constructed in 2012; 350 head capacity; full 10 ft. pit on slats
3	1.3 MG earthen storage basin
4	Machine shed
5	Cattle Barn #2; 200 head capacity; partial 8 ft. pit on slats
6	Cattle Barn #1; 200 head capacity; full 8 ft. pit on slats
7	Commodity storage sheds
8	Cedar Creek
9	Exposed concrete pad used for feed mixing and some outside storage
10	Approximately 300 ft. distance to Cedar Creek

IEPA-BOW-DWPC
Rockford Regional Office